

**STATE OF NEW HAMPSHIRE**

**FINAL 2010 Section 303(d)  
Surface Water Quality List Submitted to EPA**

**April 1, 2010**



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**Surface Water Quality List**  
**Submitted to EPA for Approval**

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## **CHAPTER 1 INTRODUCTION**

### **1.1 PURPOSE**

The Federal Water Pollution Control Act [PL92-500, commonly called the Clean Water Act (CWA)], as last reauthorized by the Water Quality Act of 1987, requires each state to submit a list of impaired waters to the U.S. Environmental Protection Agency (EPA) every two years. The document is typically called the “303(d) List “ which is so named because it is a requirement of Section 303(d) of the CWA. The 303(d) List includes surface waters that are:

- impaired or threatened by a pollutant or pollutant(s),
- not expected to meet water quality standards within a reasonable time even after application of best available technology standards for point sources or best management practices for nonpoint sources and,
- require development and implementation of a comprehensive water quality study (i.e., called a Total Maximum Daily Load or TMDL study) that is designed to meet water quality standards.

### **1.2 ASSESSMENT METHODOLOGY AND TERMS**

The 2010 Section 305(b) and 303(d) Consolidated Assessment and Listing Methodology (i.e., the CALM) describes in detail how surface water quality assessment decisions were made. The CALM also includes descriptions and definitions of the many terms used to assess surface waters. A copy of the CALM is provided at <http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm>. Readers are strongly encouraged to read the CALM before reviewing assessments as it will help one to better understand and interpret assessment results.

### **1.3 DATA**

The 2010 assessments are supported by more than 925,000 grab samples and several million datalogger results. These data records represent more than 2,000 stream sites, 2,500 lake sites, and 640 marine sites covering over 200 water-quality and ecological constituents (most are available from the DES data warehouse, at [http://www2.des.state.nh.us/OneStop/Environmental\\_Monitoring\\_Menu.aspx](http://www2.des.state.nh.us/OneStop/Environmental_Monitoring_Menu.aspx) ).

### **1.4 ASSESSMENT UNITS**

Assessment Units (AU) are the basic unit of record for conducting and reporting water quality assessments. For the 2010 assessment the AUs have been moved from 1:100,000 to the more accurate 1:24,000 mapping scale hydrography that is linked to the National Hydrography Dataset (NHD); the national coverage used by EPA. By transitioning to higher resolution mapping many of the smaller waterbodies missed by the 1:100,000 scale mapping, are now shown. As such the total number and size of assessment units reported in 2010 are significantly higher than in 2008. For example, the 2010 assessment includes approximately 7,000 more miles of rivers, approximately 450 more impoundments (approximately 1,500 acres), and

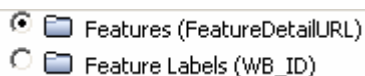
approximately 375 additional lakes (approximately 4,600 acres). An additional advantage of transitioning to more accurate mapping is that the line work more closely resembles what is actually on the ground. These improvements have greatly enhanced the ability of DES to manage and report on the status of the State's water resources.

To help determine the extent and/or location of each AU, visual aids such as maps are very useful. Unfortunately, watershed report cards developed for the 2008 assessment have not yet been updated for the 2010 cycle but will be in the coming months. In the interim, GIS layers have been set-up for users of the more common GIS software products. Currently, the AUs are available in Shape File and Geodatabase formats. KML files are available for Google Earth users. All GIS layers may be found at the department's FTP site. To access the GIS files mentioned:

- 1) Go to this address using a web browser: [ftp://199.192.6.23/DES/wmb/WaterQuality/305B\\_303D/2010/GIS/](ftp://199.192.6.23/DES/wmb/WaterQuality/305B_303D/2010/GIS/)
- 2) At the login window, click on the box in the lower left hand corner labeled "Login Anonymously".
- 3) The User name will then be automatically filled in with the word "Anonymous".
- 4) Type in your email address in the Email Address block.
- 5) Then click on the Log On button.
- 6) The [GIS] Folder should appear containing the files above

Shape files and the geodatabase are in NAD\_1983, New Hampshire State Plane, Feet.  
KML files are in WGS 84.

A note to Google Earth users – The KML files are set-up with labels and will default to drawing all labels for the state when you bring the KML files into Google Earth. To turn the labels off until zoomed in, uncheck the "Feature Labels"



## **1.5 DES SURFACE WATER QUALITY ASSESSMENT WEBSITE**

The department's surface water quality assessment website (<http://des.nh.gov/organization/divisions/water/wmb/swqa/index.htm>) contains the following materials needed for review of the draft 303(d) List:

- ❖ Consolidated Assessment and Listing Methodology (CALM) (*PDF*)
  - Response to Comments on CALM (*PDF*)
- ❖ 2010, Final 303(d) List Submitted to EPA for Approval, Content Introduction
  - 2010, Final Submitted 303(d) List (*PDF*)
  - 2010, Final Submitted 303(d) List (*EXCEL*)
  - Map of Final Submitted 303(d) Impaired Waters (*PDF*)
  - Waters Removed from the 2008 Section 303(d) List (*PDF*)
  - GIS Layers for the 2010, 305(b)/303(d) (*PDF*)
- ❖ Response to Comments on the 2010, Draft 303(d) List (*PDF*)

## **CHAPTER 2    SECTION 303(D) LIST FORMAT**

### **2.1    OVERVIEW**

The Section 303(d) List is provided in Appendix A. As previously mentioned, the Section 303(d) List only includes waters that are impaired or threatened by pollutants that require Total Maximum Daily Load studies (TMDLs). Consequently, the 303(d) List represents a subset of all impaired waters as not all impairments require a TMDL.

The List is sorted by waterbody type and then Assessment Unit ID number or AUID (each waterbody has a unique AUID). Each record includes the impaired designated use in that assessment unit, the cause of impairment, the probable source of impairment, and an estimated date that the TMDL will be completed. TMDL schedule dates and probable source names are currently blank in the case of newly documented impairments. This information will be provided on the final 303(d) list. As mentioned in Section 1.2, the reader is encouraged to review the 2010 Consolidated Assessment and Listing Methodology before reviewing the assessments as it will help one to better understand and interpret the assessment results.

## **APPENDIX A: Section 303(d) List**